REMARKS

This amendment is filed in response to the Office action mailed July 7, 2009. We thank the Examiner for taking the time to conduct the interview on October 2, 2009. All rejections and objections are respectfully traversed.

Claims 1 – 13, 15 – 20 and 24 – 26 are pending in this case.

Claims 1, 16, 20, 24 – 26 have been amended.

Interview Summary

On October 2, 2009 the Applicant's attorney conducted a telephone interview with the Examiner. The Applicant thanks the Examiner for his time. Proposed claim amendments and the cited references were discussed. The Examiner stated that he believed that the amended claims were novel over the cited prior art, but that he would have to reanalyze the references in further detail.

Claim Rejection – 35 USC §103

At paragraphs 2 – 9 of the Office Action, claims 1 – 3, 6, 12 – 13, 15 – 17, 20, and 24 – 26 were rejected under 35 U.S.C. §103(a) over Becker-Szendy et al., U. S. Patent No. 7,243,089 (hereinafter "Becker-Szendy") in view of Kazar et al., U.S. Patent No. 6,868,417 (hereinafter "Kazar").

Applicant's claimed invention, as set forth by independent claim 1, recites:

> 1. A system comprising:
> a plurality of network resources configured to process received block-based protocol data access requests; and
> a plurality of virtual servers each allocated a logical partitioning of the network resources to establish an instance of a multi-protocol server, each virtual server configured to service the block-based data access requests by converting the block-based protocol requests to appropriate file system data requests, each virtual server further configured to share access to resources of the file system; and
> ***each virtual server associated with a context data structure including information pertaining to a security domain of that virtual server to enable controlled access to the allocated and shared resources of that virtual server.***

Becker-Szendy describes a technique for federating and migrating data in a file system using virtual servers. *See* Becker-Szendy, col. 1, lines 10 – 17. Specifically, Becker-Szendy federates a local file system into a distributed file system, while preserving local access to the existing data in the local file system. *See* Becker-Szendy, col. 2, lines 52 – 54. "Unlike most file systems, meta-data and data are stored separately in the storage tank system. The server manages meta-data comprising the location of the blocks of each file/object on shared storage." (Emphasis added). *See* Becker-Szendy, col. 3, lines 2 – 5. Further, Becker-Szendy states that metadata includes "the directory tree and the attributes of objects such as files and directories.... Typical attributes comprise … security related attributes (i.e., the identity of the owner of the object and a description of what the owner or other parties may do to the object)." *See* Becker-Szendy, col. 7, 42 – 48.

Kazar describes technique for handling file level and block level remote file accesses using the same server. *See* Kazar, Abstract. Specifically, the environment includes a network file server combined with a network block protocol server, with both servers implemented on top of inode layer abstraction. *See* Kazar, col. 3, lines 21 – 23. With respect to block level services, a block login operation passes a user ID and password and authenticates a particular user. Based upon the user, the system chooses a specific file system to which the user's block read and write operations will be applied. *See* Kazar, col. 9, line 61 – col. 10, line 1.

The Applicant respectfully submits that Becker-Szendy and Kazar, either alone or in any combination, do no teach or suggest the Applicant's claimed "***each virtual server associated with a context data structure including information pertaining to a security domain of that virtual server to enable controlled access to the allocated and shared resources of that virtual server***."

In the Applicant's technique, **each vfiler is provided a context data structure** including, among other things, information pertaining to a unique and distinct security domain of the vfiler to thereby enable controlled access to allocated and shared resources of the vfiler.

As an illustrative example, consider the following. A context data structure of a first vfiler ensures that users or clients of a first security domain can use a first set of source and destination network addresses (e.g., the allocated resources) when issuing requests to access a first subset of storage resources on the storage appliance. Similarly, the context data structure of a second vfiler ensures that clients of a second security domain may use a second set of source and destination network addresses (e.g., the allocated resources) to access a second subset of storage resources. Advantageously, the clients of each security domain are unaware of each other's "presence" on the storage appliance and, further, are unable to access each other's storage resources. In sum, no data flow exists between vfilers. That is, each vfiler has its own dedicated context data structure that enables controlled access to the allocated and shared resources for a particular vfiler.

First, the Applicant respectfully submits that Becker-Szendy fails to address this feature of the Applicant's claim. The Applicant notes that at page 6 of the Office Action, the Office Action suggests that col. 7, lines 41 – 54 of Becker-Szendy address the Applicant's claimed context data structure and its features. The Applicant respectfully requests reconsideration. Specifically, col. 7, lines 41 – 54 of Becker-Szendy states:

> File data is the bytes that are actually stored in a file. Metadata is all the rest of the information stored in a file system. Metadata comprises the directory tree and the attributes of objects such as files and directories. The directory tree is a set of names that are arranged in directories, forming a tree structure. Typical attributes comprise time stamps (i.e., time created, time last modified, time last read) and security related attributes (i.e., the identity of the owner of the object and a description of what the owner or other parties may do to the object). In addition, with object based storage, it is possible to have some of the metadata stored on the object based storage. For example, object based storage manages the block mapping internally, off-loading this role from the file system. (Emphasis added).

As discussed with the Examiner during the interview, the Examiner equated Becker-Szendy's metadata with the Applicant's claimed context data structure. However, the Applicant notes that the metadata in Becker-Szendy is not dedicated to a particular vfiler like a content data structure is dedicated to each vfiler in the Applicant's claimed technique. Specifically, Becker-Szendy states, "Unlike most file systems, meta-

data and data are stored separately in the storage tank system. The server manages meta-data comprising the location of the blocks of each file/object on shared storage." (Emphasis added). *See* Becker-Szendy, col. 3, lines 2 – 5. Thus, the metadata is simply the locating information for the entire file system. Said differently, Becker-Szendy does not have a dedicated portion of metadata for each vfiler similar to the Applicant' claim that has a dedicated context data structure for each vfiler. As such, the Applicant respectfully submits that Becker-Szendy may not be fairly interpreted to teach or suggest the Applicant's claimed "***each virtual server associated with a context data structure*** …" Further, the Applicant respectfully submits that Becker-Szendy's metadata simply includes security related attributes (e.g., access rights such as read-only, and write-only). The security attributes of Becker-Szendy's metadata do not include information pertaining to a security domain **of a specific vfiler to enable controlled access to the allocated and shared resources of that virtual server**. That is, the security attributes in Becker-Szendy do not apply to a specific vfiler and that vfiler's allocated and shared resources.

Second, the Applicant respectfully submits that the deficiencies of Becker-Szendy are not remedied by a combination with Kazar. Specifically, Kazar simply describes a technique for handling file level and block level remote file accesses using the same server. *See* Kazar, Abstract. Kazar makes no mention of each vfiler of a plurality of vfilers having its own dedicated context data structure that enables controlled access to the allocated and shared resources for a particular vfiler.

Accordingly, Applicant respectfully urges that Becker-Szendy and Kazar, either alone or in any combination, is legally insufficient to render the present claims unpatentable under 35 U.S.C. 103(a) because of the absence in Becker-Szendy and Kazar of Applicant's claimed "***each virtual server associated with a context data structure including information pertaining to a security domain of that virtual server to enable controlled access to the allocated and shared resources of that virtual server***."

At paragraphs 10 – 11 of the Office Action, claims 4 – 5 and 18 – 19 were rejected under 35 U.S.C. §103(a) over Becker-Szendy in view of Kazar, in further view of Mane et al., U.S. Publication No. 2005/0050107 (hereinafter "Mane").

At paragraphs 12 – 15 of the Office Action, claims 7 – 11 were rejected under 35 U.S.C. §103(a) over Becker-Szendy in view of Kazar, in further view of George et al., U.S. Patent No. 7,010,663 (hereinafter "George").

The Applicant notes that claims 4 – 5, 12 – 15, and 18 – 19 are dependent claims that depend from independent claims believed to be in condition for allowance. Accordingly, claims 4 – 5, 7 – 15, and 18 – 19 are believed to be in condition for allowance due to their dependency, as well as for other separate reasons.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

Applicant respectfully solicits favorable action

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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